

Appl. No.: 10/612,670

Filed: July 2, 2003

Page 5

REMARKS/ARGUMENTS

In the Office Action dated April 28, 2004, Claims 1-10 are pending. Claims 1-8 and 10 are rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,295,893 to Ogawa. Claims 1-4 and 6-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,425,821 to Kurup, et al. Claims 1-7 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,831,459 to Satzler, et al.

Claims 1 and 7 have been amended, as set forth above, to more clearly set forth the invention of the present invention. Applicant respectfully submits that none of the cited references teaches or describes a machined structural assembly as set forth in independent Claim 1 as amended. In particular, Claim 1 now recites a machined structural assembly prepared by a process that includes "linear friction welding the first and second structural members together to construct a preform such that the preform defines an elongate friction weld joint and has dimensions approximating the dimensions of the machined structural assembly." Moreover, the preform is then machined to remove excess material from the preform "to form the machined structural assembly defining the elongate friction weld joint and having the predetermined dimensions." Thus, as set forth in Claim 1, the machined structural assembly defines an elongate friction weld joint.

None of the cited references teaches or suggests a machined structural assembly defining an elongate friction weld joint. In fact, Ogawa, et al. and Satzler, et al. are both directed to devices formed by rotational friction welding, and do not disclose linear friction welding or the formation of an elongate weld joint. Kurup, et al. states that a valve may have a tip or stem welded thereto, and that the welding can be friction welding. However, Kurup, et al. does not teach or suggest linear friction welding. Moreover, the joint formed between the valve and the tip or stem is not an elongate weld joint.

In addition, Applicant submits that Claim 1 as amended includes another basis of distinction over the cited references. In particular, Claim 1 recites a machined structural assembly formed by "selecting first and second structural members based on the dimensions of the machined structural assembly, the structural members including excess material such that at

Appl. No.: 10/612,670

Filed: July 2, 2003

Page 6

least one of the structural members is larger in at least one dimension than the corresponding dimension of the machined structural assembly." After linear friction welding, the preform is machined "to remove the excess material from the preform including at least a portion of the elongate weld joint to form the machined structural assembly defining the elongate friction weld joint and having the predetermined dimensions, at least one of the structural members defining a machined surface adjacent the elongate friction weld joint." Thus, at least one of the structural members defines a machined surface adjacent the elongate friction weld joint. This machined surface is formed by machining excess material of at least one of the structural members. In addition, at least a portion of the weld joint is removed. None of the cited references teaches or suggests a machined structural assembly in which a structural member of the assembly defines a machined surface adjacent the elongate friction weld joint.

Thus, Claim 1 is not anticipated by the cited references. Similarly, each of the dependent Claims 2-9 is not anticipated by the cited references. Further, Claim 7 now recites that the friction weld joint as well as each of the structural members is machined such that each of the structural members defines a machined surface adjacent the elongate weld joint, a feature not present in the cited references.

For the foregoing reasons, Applicant submits that Claims 1-10 are allowable.

* * * *

CONCLUSIONS

In view of the remarks presented above, Applicant submits that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicant's undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required

Appl. No.: 10/612,670

Filed: July 2, 2003

Page 7

therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

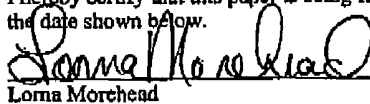


Nicholas F. Gallo
Registration No. 50,135

Customer No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Charlotte Office (704) 444-1000
Fax Charlotte Office (704) 444-1111
#4645538v1

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the US Patent and Trademark Office at Fax No. (703) 872-9306 on the date shown below.


Lorna Morchead

7/13/2004
Date